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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,846	09/30/2003	Andreas Roessler	09700.0061	3766

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EXAMINER	
THERIAULT, STEVEN B	
ART UNIT	PAPER NUMBER
2179	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,846	ROESSLER ET AL.	
	Examiner	Art Unit	
	STEVEN B. THERIAULT	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *17 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7,9,11-15,17-19,21 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2,4-5,7,9,11-15,17-19 and 21-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the following communications: RCE, Amendment and Arguments filed 09/17/2010.

2. Claims 1-2, 4-5, 7, 9, 11-15, 17-19, and 21-22 are pending in the case.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/17/2010 has been entered.

Response to Arguments

3. Applicant's argument's, see page 12, filed 08/18/2010, with respect to the rejection(s) of claim(s) 1-2, 4-5, 7, 9, 11-15, 17-19, and 21-22 under Gheith in view of Nguyen have been fully considered and are not persuasive, in light of the amendment and new art. Specifically, applicant argues that amended features are not shown in Gheith in view on Nguyen. These limitations are now addressed in the new grounds of rejection shown below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 1-2, 4-5, 7, 9, 11, 13-15, 17-19, and 21 are rejected under 35 U.S.C 103(a) as being unpatentable over Gheith et al. (hereinafter Gheith) U.S. Patent No. 7082454 field Nov. 15, 1999, in view of Snodgrass et al. (hereinafter Snodgrass) U.S. Patent No. 7331038 field July, 2, 2003.**

In regard to **Independent claim 1,** Gheith teaches a computer program product, tangibly embodied in a non-transitory computer-readable storage medium (See column 2, lines 40-67 and figure 1), comprising instructions operable on a computer to:

- Provide a user interface for a computer program application the user interface being operable to receive input from a user interacting with the computer and from the input to generate user interaction events (See Figure 2, and column 4, lines 15-67). Gheith shows a user interface that receives user inputs to generate state information and URL information to change the interface.

- Identify one or more future user interaction events that may occur while the user interface is in a current user interface state (See Column 4, lines 20-55). Gheith identifies future product choices based on the current selections in figure 2.

- Select one or more of the future user interaction events to pre-process based on the estimated likelihoods that the future user interaction events will occur (See column 4, lines 20-67). Gheith teaches determining the content of the subsequent page based on the options made by the user. The determination is made out of the 20 options presented to the user, based on the state selection, the appropriate events will be displayed.

- Pre-render, while the user interface is in the current user interface state, future user interface appearances corresponding to the generated future user interface states and store the pre-rendered user interface appearances for future use. (See column 5, lines 55-67 and column 6, lines 1-41). Gheith teaches the system look-ahead manager populates the cache (stores) with files necessary to display the next state selected by the user) by performing content production to generate code to product HTML and then serves the file to the computer which is then saved in cache 360. Therefore, the next page is generated, served and stored and ready to be presented to the user.

Gheith does not expressly recite a step of:

- Estimate a likelihood for the future user interaction events to occur based on a history of previous user inputs to the user interface

- Generate, while the user interface is in the current user interface state properties of future interface states, the future user interface states corresponding to the selected future interaction events;

- Pre-process, while the user interface is in the current user interface state, the selected future user interaction events to generate the corresponding future user interface states based on the generated properties of the corresponding user interface states (See column 5, lines 55-67 and column 6, lines 1-41).

Gheith **suggests** the state information extracted from the URL "may" include one or more interim steps such as “generating xml code” and then using a style sheet to produce html, which is a direct suggestion that the system of Gheith can generate future and current interface screens (See col. 7, lines 1-20). Moreover, Gheith **suggests** that while the current page is served (See col. 6, lines 1-67) that the “subsequent” states are computed, which is an example of future states. The content production system and the look ahead manager build the cache by generating web pages for the purposes specified in Gheith to dynamically create documents to be

cached and reused based on configuration options entered by the user or future interaction states.

Gheith also does not expressly statue using history of inputs to estimate the next event even thought the previous choices are used and stored to facilitate the generation of the next interface. Nonetheless, in the analogous art of dynamic web page creation, Snodgrass expressly teaches a pre-fetch service and a dynamic web page generator service (See Fig. 2 and 3) that receives a request to generate a webpage based on a likely or estimates the next event (see col. 3, lines 55-67 and Col. 7, lines 15-42). Snodgrass teaches a pre-fetch client that uses a dynamic web page generator to retrieve a list of pages likely to be generated if the user selects a given page URL (See column 5, lines 1-67 and col. 6, lines 1-45, column 8, lines 25-67 and column 9, lines 1-67 and col. 10, lines 1-67 and col. 12, lines 20-67 and col. 13, lines 1-10). Snodgrass teaches the generator and client generate the documents (see col. 1, middle) to reduce load times. Snodgrass teaches pre-processing the sub-tasks based on extracted input from the URL such as validating a user or checking information about the user (See col. 8, lines 45-67 and col. 4, and lines 45-55). Snodgrass and Gheith teach dynamic web page generation and pre-fetching services for the purposes of reducing processing times and caching web pages to present to the user.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention having the teachings of Gheith and Snodgrass in front of them to modify the system of Gheith to generate future web pages based on current selections and estimate the possible selections before the user executes the selection. The motivation to combine Gheith with Snodgrass comes from within Snodgrass to preemptively generate web pages to reduce processing time (See col. 1, bottom and col. 2, top, col. 3, bottom).

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With respect to **dependent claim 2,** Gheith teaches the product further comprising instructions to receive an actual input from the user and, if a first one of the future user interface states corresponds to the actual

input, display the future user interface appearance corresponding to the first user interface state (See column 5, lines 45-55 and column 4, lines 15-45).

With respect to **dependent claim 4,** Gheith teaches the product further comprising instructions to generate code to render the first user interface state (See column 7, lines 1-20).

With respect to **dependent claim 5,** Gheith teaches the product wherein the code to render the first user interface state comprises HTML (Hypertext Markup Language) code (See column 3, lines 45-67 and column 7, lines 1-20).

With respect to **dependent claim 7,** Gheith teaches the product further comprising instructions to specify an order for pre-processing the future user interaction events based on the estimated likelihoods that the future user interaction events will occur (See column 6, lines 40-67, view the hashing function can create an order in the cache to which the pages are organized for processing by using the identifier, or key corresponding to the location in cache.

With respect to **dependent claim 9,** Gheith teaches the product wherein the user interface comprises a control having instructions to establish the estimated likelihoods for the future user interaction events (See column 4, lines 30-43).

With respect to **dependent claim 11,** Gheith teaches the product wherein the instructions to pre-process the selected future user interaction events ~~generate one or more future user interface states~~ comprise instructions to obtain data from the computer program application for the generated future user interface states (See column 4, lines 15-67, retrieves configuration options and URL string and state from the application in Figure 2).

With respect to **dependent claim 13,** Gheith teaches the product herein the computer program product is a program running on a server computer in data communication with [[the]] a client computer; and the instructions to provide a user interface ~~on the client computer~~ comprise instructions to provide the user interface in a Web browser (See column 3, lines 45-67 and column 7, lines 1-20)

With regard to **claims 14-15 and 17,** claims 14-15 and 17 reflect the method that comprises steps executable in the product on a medium of claims 1, 2 and 7, respectively, and are rejected along the same rationale. Gheith teaches the medium and the product to execute the program displaying an interface with cached future interfaces generated from user interactions (See column 3, lines 45-67).

With regard to **claims 18-19 and 21,** claims 18-19 and 21 reflect the apparatus that comprises computer readable instructions for performing the steps of product claims 1, 2 and 7, respectively, and are rejected along the same rationale. Gheith clearly teaches the apparatus displaying an interface with cached future interfaces generated from user interactions (See column 3, lines 45-67).

With respect to **dependent claims 12 and 22,** as indicated in the above discussion Gheith in view of Snodgrass teaches every element of claim 1.

Gheith teaches tracking user inputs to determine the next state of an interface but does not state determining an estimate of occurrence. However, these limitations would have been obvious to the skilled artisan at the time of the invention, in view of Snodgrass, because Snodgrass expressly teaches a pre-fetch service and a dynamic web page generator service (See Fig. 2 and 3) that receives a request to generate a webpage based on a likely or estimates the next event (see col. 3, lines 55-67 and Col. 7, lines 15-42). Snodgrass teaches generating a webpage if the score or statistical data is above or meets a given value. Snodgrass specifically teaches preemptively generating a web page based on the likeliness that the user will select the page on the next occurrence (See also click stream analysis col. 12, lines 20-67)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention having the teachings of Gheith and Snodgrass in front of them to modify the

system of Gheith to generate future web pages based on current selections and estimate the possible selections before the user executes the selection. The motivation to combine Gheith with Snodgrass comes from within Snodgrass to preemptively generate web pages to reduce processing time (See col. 1, bottom and col. 2, top, col. 3, bottom and col. 12, lines 20-30) and that pre-fetch results can be determined from prior document generation events.

A reference to specific paragraphs, columns, pages, or figures in a cited prior art reference is not limited to preferred embodiments or any specific examples. It is well settled that a prior art reference, in its entirety, must be considered for all that it expressly teaches and fairly suggests to one having ordinary skill in the art. Stated differently, a prior art disclosure reading on a limitation of Applicant's claim cannot be ignored on the ground that other embodiments disclosed were instead cited. Therefore, the Examiner's citation to a specific portion of a single prior art reference is not intended to exclusively dictate, but rather, to demonstrate an exemplary disclosure commensurate with the specific limitations being addressed. In re *Heck*, 699 F.2d 1331, 1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re *Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)). In re: *Upsher-Smith Labs. v. Pamlab, LLC,* 412 F.3d 1319, 1323, 75 USPQ2d 1213, 1215 (Fed. Cir. 2005); *In re Fritch,* 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1782 (Fed. Cir. 1992); *Merck & Co. v. Biocraft Labs., Inc.,* 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989); *In re Fracalossi,* 681 F.2d 792,794 n.1, 215 USPQ 569, 570 n.1 (CCPA 1982); *In re Lamberti,* 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976); *In re Bozek,* 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN B. THERIAULT whose telephone number is (571)272-5867. The examiner can normally be reached on Mon.-Fri. 10 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven B Theriault/
Primary Examiner
Art Unit 2179